

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,058,548 B2
APPLICATION NO. : 10/693188
DATED : June 6, 2006
INVENTOR(S) : Peter J. Pupalaikis and David C. Graef

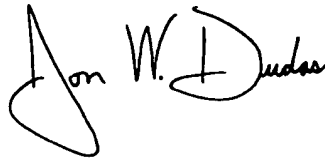
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

The title page should be deleted and substitute
therefore the attached title page as shown on the
attached page.

Signed and Sealed this

Fifth Day of December, 2006

A handwritten signature in black ink, appearing to read "Jon W. Dudas". The signature is stylized with a large, looped initial "J" and a distinct "D" for "Dudas".

JON W. DUDAS
Director of the United States Patent and Trademark Office

(12) **United States Patent**
Pupalais et al.

(10) Patent No.: **US 7,058,548 B2**
(45) Date of Patent: **Jun. 6, 2006**

(54) **HIGH BANDWIDTH REAL-TIME
OSCILLOSCOPE**

(75) Inventors: Peter J. Pupalais, Ramsey, NJ (US);
David C. Graef, Campbell Hall, NY (US)

(73) Assignee: LeCroy Corporation, Chestnut Ridge,
NY (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

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341/155; 341/126

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324/76.22, 76.23, 76.24, 76.28, 76.29, 76.31,
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375/225, 316; 708/300, 309, 311; 331/42,
331/43, 30-32, 64, 135; 382/260

See application file for complete search history.

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Primary Examiner—Hal Wachsmann

(74) Attorney, Agent, or Firm—Frommer Lawrence & Haug
LLP; William S. Frommer

(57) **ABSTRACT**

A method and apparatus for digitizing a data signal. An input
analog data signal, is received and split into a plurality of
split signals. At least one of the split signals is mixed with
a predetermined periodic function with a predetermined
frequency. The split signals are then digitized and combined
mathematically to form a single output data stream that is a
substantially correct representation of the original input
signal.

28 Claims, 23 Drawing Sheets

